

PROPOSED WORK STATEMENT

PART I - MATERIALS AND SERVICES TO BE FURNISHED:

Contractor shall furnish the necessary materials and services to deliver U-2R airplanes and related items as set forth below:

<u>Item</u>	<u>Description</u>	<u>Quantity</u>	<u>Target Price</u>
1.	Engineering Services required to develop, test and manufacture Model U-2R Airplanes	Lot	
2.	Tooling and maintenance thereof required to manufacture U-2R Airplanes	Lot	
3.	Model U-2R Airplanes		
4.	Static Test Article of U-2R Airplane	1	
5.	Static Testing, Wind Tunnel Testing and Miscellaneous Tests	Lot	
6.	Engineering Mock-up of U-2R Airplane	1	
7.	a) Conduct Engineering Flight Test Program of [REDACTED] airplane months Per. SP-2073 dated 17 May 1967		
	b) Conduct Delivery and Delivery Flight Test Program to deliver airplanes supplied under Item 3	Lot	

25X1D0b

25X1D0b

25X1D0b

\*Note: All necessary optical window glass and heater-blowers

9. Technical Data as follows:

- a) Manufacturing Drawings and Bills of Material 3 cys. incl. in 1
- b) Monthly Fiscal Status Reports 4 cys. N.A.
- c) Monthly Technical Progress Reports 3 cys. incl. in 1
- d) Performance Report including Installed Engine Performance Data 3 cys. incl. in 7
- e) Stability and Control Report 3 cys. incl. in 7
- f) Wind Tunnel Test Report 3 cys. incl. in 5
- g) General Arrangement and Inboard Profile Drawings 3 cys. incl. in 1
- h) Structural Analysis Summary Report 3 cys. incl. in 1
- i) Static Test Report 3 cys. incl. in 5
- j) Ejection System Test Report 3 cys. incl. in 5
- k) Weight and Balance Report 3 cys. incl. in 5
- l) Flight Test Reports 3 cys. incl. in 7
- m) Flight Manual
- n) 6-1 Inspection Requirements Manual
- o) 3-1 Structural Repair Manual
- p) Autopilot Training Manual
- q) Autopilot O & M Manual
- r) Maintenance Manuals as follows:
  - 2-1 General Airframe
  - 2-2 Flight Controls and Instruments
  - 2-3 Air Conditioning and Pressurization
  - 2-4 Engine
  - 2-5 Fuel and Hydraulic
  - 2-6 Oxygen and Personal Equip.
  - 2-7 Electrical
  - 2-8 Ground Handling
  - 2-9 Special Equipment
- s) List of Applicable Publications (LOAP)
- t) Tech. Order Compliance List (SPAADL)

10. Airframe Spares as follows:

-----

Listed here will be major ADP fabricated airframe items such as:

Ailerons, flaps, stabilizers, canopies, etc.

-----

Target Price

---



---

Budgetary Items:11. Airframe Spares

12. Aerospace Ground Equipment (AGE) To Be Determined
13. Special Hatches:
  - a) A1
  - b) A2

25X1D0b

PART II - SPECIFICATIONS:

- a. The Model U-2R Reconnaissance Airplanes shall be designed, developed, tested, manufactured and delivered in accordance with Specification SP-1125, revised 1 July 1967, incorporated herein by reference and made a part hereof. It is understood that SP-1125 is modified as follows:

In Paragraph 3.1.2, delete the word "Estimated."  
Add Paragraph 3.1.2.2.1, "At any point within the envelopes of Figs. 2 through 4 the aircraft shall

25X1D0b

- b. Static Test Article

The static test article shall consist of the complete forward and aft fuselage structure assemblies, the complete empennage structure assembly, including control surfaces, a complete left hand wing structure assembly, including control surfaces, and the main tail and pogo landing gear assemblies. In addition to the structure, some items in the control system such as flap and horizontal tail trim actuators shall be provided.

- c. Static Testing, Wind Tunnel Testing and Miscellaneous Testing

- 1) Static Test Program

A series of static tests will be conducted on the static test article to substantiate the strength of the primary structure of the airplane. The static test program, along with analytical stress analysis reports, will show that the airplane structure meets the design strength requirements. The test program will consist of tests that apply critical wing and fuselage up and down bending loads, critical stabilizer loads, and critical control surface loads. Landing gear structure, if not tested during the drop test program, will be tested on the static test article. In addition, control surfaces will be operated through their full travel with deflected wings and stabilizers to check

for interferences under load. Finally, the test article will be tested to destruction for the most critical wing or fuselage condition to determine the capability of the structure. A final report will be prepared describing test results.

2) Wind Tunnel Test Program

Wind tunnel testing shall be performed to optimize the aerodynamic design of the U-2R A/C.

3) Miscellaneous Test Program

The miscellaneous test program shall consist of the engineering testing deemed necessary to prove out the basic design of the various A/C systems and/or components. The following is a list of some of the specific tests which will be conducted:

A. Fuel Seal and Material Tests

Testing of various sealing compounds and configurations for the containment of fuel and pressure.

B. Structural Tests

Testing of individual structural components not included in the static test.

D. Antenna Tests

Testing of the locations of the various aircraft antennas on a scale model.

E. Landing Gear Drop Tests

Drop testing of the main and tail landing gear to confirm limit strength envelope and to derive the orifice and metering pin configuration.

F. Functional System Component Tests

Testing of various systems or components of a system prior to aircraft installation to prove out design.

25X1A6a

G. Canopy and Seat Pyrotechnics and Ejection Tests

Conducting of testing required to prove out the escape system of the aircraft. This will include a series of "breadboard" tests of components of the escape system, canopy removal tests, and two static firings of the complete system to confirm through-the-canopy ejection capability. [REDACTED]

25X1D0b  
25X1D0b

d. Engineering Mock-up of A/C

The wooden mock-up shall be representative of the forward fuselage structure and the equipment installations. The mock-up will be utilized as an "engineering tool" to locate equipment, determine wiring and plumbing runs, check interferences and determine service and maintenance accessibility. The mock-up will provide for the fixed and removable nose sections, the cockpit, the equipment bay, the engine inlets and ducts and the engine compartment.

In addition, a partial mock-up of the aft fuselage will be constructed to represent the aft fuselage "Dog House" fairing, the movable empennage assembly and the tail cone. This will provide for locating equipment in the fairing and tail cone and to check operation of the movable empennage assembly.

e. Flight Test Program

The Engineering Flight Test Program will be developed in accordance with SO-2073 dated 17 May 1967. Testing objectives will be to demonstrate that the aircraft is as good as or better than outlined in SP-1125 and aircraft performance in terms of altitude, range and turning rate will be obtained to establish satisfactory specification compliance.

f. Delivery and Delivery Flight Test Programs

25X1D0b

Delivery of U-2R A/C Serial [REDACTED] accomplished in accordance with Attachment A hereto entitled "Delivery Procedure L-351 Aircraft" dated 11 August 1967.

Pre-acceptance shakedown flights of production aircraft will be substantially in accordance with practices developed on prior U-2 programs.

g. Acceptance flights of the production aircraft will be made by Customer pilots.

Acceptance criteria will be the configuration and performance outlined in SP-1125 as revised 1 July 1967 and herein.

- h) 1) Drawings & B/M's shall be in accordance with good commercial aircraft practice.
- 2) Monthly Fiscal Status Reports shall be in the format of Attachment B hereto.
- 3) Monthly Technical Progress Reports shall be informal and illustrated where appropriate.
- 4) Performance report including installed engine performance data. This report will be similar to LAC Report SP-237A. It will include curves of all aerodynamic parameters and engine data used to derive the specification performance, and sample calculations for each of the performance items and parametric curves showing performance as effected by gross weight variations.
- 5) Stability and Control Report - This report will be similar to LAC Report SP-324. It will include the basic stability and control data from which the handling qualities of the U-2R were derived and the analysis and results for both the static handling qualities and the dynamic handling qualities. One report may be evolved which will include both performance and stability and control.
- 6) Wind Tunnel Test Report - This will be a summary report of the various wind tunnel tests run on U-2R models.
- 7) Structural Analysis Summary Report - This report will summarize the significant results of the more detailed stress analysis performed in designing and building the aircraft. The critical design conditions, i.e., gust, roll, etc., for the various structural members will be identified.
- 8) Static Test Report - This report will be similar to Report SP-436. It will present the procedures and results of static tests performed to demonstrate the structural integrity of the model U-2R airplane.
- 9) Ejection System Test Report - This report will include results of testing required because of modifications made to the basic ejection system.
- 10) Weight and Balance Report - This report will use the Model Specification configuration as a base line as opposed to the weight and balance data to be furnished with each aircraft at time of delivery.
- 11) Flight Test Reports - These reports shall include the results of data reduction and analysis in terms of performance and stability and control in accordance with the program outlined in SP-2073.

12) The manuals, items 9m. thru 9s. shall be prepared in accordance with the content and format found in the equivalent manuals for the U-2C.

13) Spare Parts and AGE shall be furnished in accordance with Exhibits to be submitted by the Contractor and approved by the Contracting Officer. Provisioning will be performed in accordance with criteria to be mutually agreed upon between the Contracting Officer and the Contractor.

14) The Contractor will furnish such items of equipment as the Contracting Officer may authorize under this contract. Attachment C attached hereto and made a part hereof lists the equipment to be provided by the Government to the Contractor.

15) The policy and procedures regarding Logistic Support will be as follows:

- a) The Gov. will provide a base for flight testing and furnish as required, the following operating services: Guards, Inventory Control, Firemen, Custodial, [REDACTED] and [REDACTED] Tek. Reps to service the doppler navigation equipment.
- b) The cost of replenishing and/or refurbishing spare parts and, the cost of overhaul and repair services required during the Flight Test, Delivery, and Acceptance phases of this contract shall be charged to appropriate service contracts such as SP-1922 and SP-1923. Such costs shall be separately accumulated and reported.
- c) 1) Service Bulletins (corrections of design deficiencies, etc. as opposed to customer generated changes in scope) will be incorporated on the U-2R production line whenever this will not result in a significant deferment of the operational availability of the specific aircraft.  
2) Where 1) above is not possible, Service Bulletin Kits will be prepared (the cost thereof being charged to Contract SP-1929) and will be installed under a separate service Contract such as SP-1923.

16) Costs incurred pursuant to the authorizations set forth in Headquarters Teletype #9456 dated 4 May 1966, #2454 dated 30 June 1966, and #4547 dated 11 August 1966 have been included in the target price of this contract and are therefore allowable costs in the performance of the contract work.

25X1A5a1  
25X1A5a1

Approved For Release 1999/09/07 : CIA-RDP71B00263R000200030013-1

25X100

Approved For Release 1999/09/07 : CIA-RDP71B00263R000200030013-1